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Conference Abstract

mangal - making sense of biotic interaction data

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Abstract

There are exponentially more species interactions than there are species - and this should entice us to be exponentially more careful when designing a data format to represent species interactions. The tradition in the analysis of species interaction networks was to store matrices, but this format is inefficient, does not offer access to the information in a modular and atomic way, and is poor in meta-data. To help research, faciltiate interaction with other biodiversity data representations, and offer a universal, unified format to represent biotic interactions, we designed mangal.io. At its core, the mangal data format specificies how various component of an interaction should be represented, and the hierarchy between them. In this presentation, we will (i) describe the original data format and explain how it was designed based on ecological principles, (ii) describe the revised data format and why it can function as the standard for biotic interaction data, and (iii) illustrate case studies based on the use of mangal.io, notably related to using AI/machine learning to infer missing biotic interactions and the macroecology of food webs

Keywords

API, biotic interactions

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